



Express Mail No. EV336614865US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : David S. Wardrop et al.
Application No. : 10/017,483
Confirmation No. : 5180
Filed : December 14, 2001
For : FUEL CELL SYSTEM SHUNT REGULATOR METHOD AND APPARATUS
Examiner : Raymond Alejandro
Art Unit : 1745
Docket No. : 130109.431
Date : February 26, 2004

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPLICANTS' RECORD OF THE SUBSTANCE OF THE INTERVIEW

Commissioner for Patents:

This is a Response to the Interview Summary mailed January 26, 2004, in which a one (1) month period, due to expire February 26, 2004, has been set for the applicants to file a statement of the substance of the interview. Claims 1-7 and 9 were discussed during the interview conducted on January 20, 2004, between Examiner Raymond Alejandro and Applicants' attorney, Frank Abramonte.

Applicants' attorney agrees that discussion was directed to specific language "to selectively couple the first dump load when the fuel cell solid polymer electrochemical fuel cell exceeds a threshold voltage ...and to uncouple the first dump load when the stack terminal voltage across thereof is below the threshold voltage."

Applicants' attorney respectfully disagrees that Applicants admitted during the telephone interview that the prior art of record discloses the opposite *functionality* from Applicants' system. In this respect, during the telephone interview Applicants' attorney stated that the *operation* taught by Keller is opposite the *operation* taught by Applicants. Keller teaches coupling the pump into the circuit when the stack terminal voltage drops below the threshold voltage, and uncoupling the pump from the circuit when the stack terminal voltage

exceeds the threshold voltage. As explained in the interview, Applicants teach coupling the dump load into the circuit when the stack terminal voltage exceeds the threshold voltage, and uncoupling the dump load from the circuit when the stack voltage is below the threshold voltage.

With respect to functionality, Keller teaches selectively coupling and uncoupling a pump to a circuit, where the pump supplies fuel to a fuel cell stack, in order to regulate the output of the fuel cell stack. In contrast, Applicants teach coupling and uncoupling a dump load to a circuit to dissipate output already produced by the fuel cell stack. The functionality of Applicants' system is so distinctly different from the functionality of the Keller system that it cannot even be said to be opposite.

With respect to the Examiner's assertion that the prior art does not teach "such opposite functionality or behavior . . . cause detrimental damages [sic] to the fuel cell system as a whole," Applicants rely on the Response filed January 22, 2004, which notes that operation of the pump in the manner recited by the Applicants' claims would result in catastrophic runaway operation (*i.e.*, more and more fuel is supplied as the output of the fuel cell stack continues climbing).

Applicants' attorney also respectfully disagrees that Applicants contended that the term "dump load" strictly refers to a resistive element. In this respect, Applicants' attorney stated that the dump load includes a resistive element, however may additionally include other elements such as the capacitive or inductive elements noted in the specification.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



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TRANSMITTAL FORM

(To be used for all correspondence after initial filing)

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Filing Date	December 14, 2001
First Named Inventor	David S. Wardrop
Art Unit	1745
Examiner Name	Raymond Alejandro
Attorney Docket No.	130109.431

ENCLOSURES (check all that apply)

- | | | |
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<input type="checkbox"/> Affidavits/declaration(s)
<input type="checkbox"/> Extension of Time Request
<input type="checkbox"/> Express Abandonment Request
<input type="checkbox"/> Information Disclosure Statement; Form PTO-1449
<input type="checkbox"/> Cited References
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Individual Name	Frank Abramonte	Customer Number
		00500
Signature		
Date	February 26, 2004	

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